DOI:
10.1111/jan.14105

Document Version
Peer reviewed version

JAN
Leading Global Nursing Research

A Rapid Review of Educational Preparedness of Advanced Clinical Practitioners

Journal:	*Journal of Advanced Nursing*
Manuscript ID	JAN-2018-0601.R1
Manuscript Type:	Review
Keywords:	Advanced Practice, Multiprofessional Education, Nurse Education, Nurse Practitioners, Theory-practice Gap
Category:	Nurses

Abstract

Aim

To establish if Advanced Clinical Practice programmes provide the appropriate level of educational preparation.

Design

A rapid review of the literature

Data Sources

Ovid Medline Ovid EMBASE were used, and papers published between 2007-2018. Ninety-nine papers were then reviewed for eligibility.

Review Methods

Tricco's seven-stage process was applied

Results

Ninety-nine papers were reviewed and 39 included and four themes identified: consolidation, theory practice gap, competency and mentoring. A lack of preparedness for new advanced clinical practitioners completing an educational programme was noted with a need identified for a clinically focussed consolidation period to enable practitioners to develop their skills under supervision in the clinical environment.

Conclusion

As the needs for different models of healthcare evolves with the expansion of advanced practice; appropriate education and clinical supervision are important aspects in the delivery

of programmes that allows individuals to be competent and confident practitioners providing safe and effective healthcare.

Impact

There is a paucity of papers on educational preparedness of Advanced Clinical Practitioners. This study aims to provide an overview of the literature on the current curriculum.

Findings demonstrate the lack of preparedness in advanced clinical practitioners following Masters completion with a need for more practical and academic elements and a clinically focussed consolidation period with good role models and mentors.

These findings should impact, both newly qualified advanced clinical practitioners, employers and higher education institutes in designing their curriculum and post Masters completion to ensure protected period of time to work with mentors and consolidate clinical practice.

Keywords

Advanced clinical practice, nursing, healthcare professionals, education, clinical preparedness, training, role transition, mentoring, specialist.

INTRODUCTION

In many first-world countries, there has been increased demand for advanced practice (AP) roles in healthcare. Roles such as nurse practitioners (NP) and clinical nurse specialists have developed to address unmet population health needs and to provide more sustainable healthcare services (Lee and Fitzgerald, 2008, Bryant-Lukosius *et al.,* 2004). A more recent trend by in the United Kingdom (UK) is to employ allied health professionals (such as paramedics and physiotherapists) in advanced clinical practice (ACP) roles to meet the need for more healthcare professionals to undertake diagnostic and decision-making roles, traditionally performed by physicians (Department of Health 2014, Health Education England (HEE) 2015; Imison *et al.* 2016). Nuffield Health's report on reshaping the workforce stated the need to train, recruit and upskill the workforce and ensure the NHS evolves to have the skills required to meet the health needs of the population (Imison *et al*., 2016). ACP roles offer opportunities to address shortage within the medical workforce, improve clinical continuity, provide new clinical roles for healthcare professionals.

BACKGROUND

The challenge for workforce employers in the UK is that the ACP role remains, until recently, ill-defined and unregulated, leading to confusion about role titles and expectations. There is a lack of heterogeneity in curricula preparation, role deployment, competence development and role regulation across Higher Education Institutes in England (HEE, 2015). There is currently no international consensus on the definition of what is ACP. A recent UK study highlighted the numbers of varying job titles that included 'advanced practitioner' across different departments and different healthcare providers both nationally and internationally (Leary *et al.,* 2017). When considering educational preparation Masters level study was commonly the minimum

requirement in the UK, USA, Australia and Finland (Driscoll *et al.,* 2012). A meta-summary of fifty papers identified seven domains of advanced practice (Hutchinson *et al.,* 2014).The authors were unable to define advanced practice as there was inconsistencies with the definition, measurement and function, and scope of advanced practice across Australia, USA and UK.

The concept of the advanced nurse being Masters prepared was described by Elliott (1995) and the Royal College of Nursing (RCN) defines advanced nursing practice "*as a level of practice rather than a role or job title. (Advanced nursing practice) both builds on, and adds to, the set of competences common to all registered nurses*" RCN (2012). HEE (2017) built on this and developed a new definition for ACP in 2017 that described the scope of advanced clinical practice, standardise advanced practitioner role functions, educational preparation, practice capabilities, and role development. The definition of ACP from HEE:

'Advanced Clinical Practice is delivered by experienced registered healthcare practitioners. It is a level of practice characterised by a high level of autonomy and complex decision-making. This is underpinned by a Masters level award or equivalent that encompasses the pillars of clinical practice, management and leadership, education and research, with demonstration of core and area specific clinical competence.' (HEE, 2017).

Health Education England's objective is to develop a more flexible workforce which is able to respond to these changes (DH, 2015) and this definition has now been adopted across England and Wales in order to standardise the role and allow consistent practice across disciplines for ACP roles (HEE, 2017). A lack of a protected title for the 'Advanced Practitioner' title in the England and Wales has enabled individual specialities and Trusts to employ 'advanced nurse practitioners' with no legislative restriction on using the title (Jokiniemi *et al.,* 2013, Leary *et al.* 2017), unlike the US and Australia where it is a legally protected title.

In the authors' higher education institution, an MSc Advanced Practice programme has been in place for some years. The programme curriculum was recently redesigned and developed using the four areas of advanced clinical practice identified in the NHS England ACP Framework: clinical practice, leadership and management, education and research with core and area-specific clinical competencies (HEE, 2017).

Aim

The aim of this rapid review of the literature was to establish if Advanced Clinical Practice programmes provided the appropriate level of educational preparation for the ACP role.

Design

The rapid review was undertaken as outlined by Tricco *et al.* (2017) to identify any publications on the educational preparedness of ACPs as they transitioned to autonomous clinical practice. Rapid reviews are designed to examine a snapshot of current research to inform changes in clinical practice in a cost and time pressured environment using a systematic and transparent process, using limited search criteria and limited databases, working collaboratively with a team of researchers and experts within the field to minimise limitations (O'Leary *et al.* 2016) (refer to Supplementary Table 1).

This rapid review followed the seven-stage process outlined by Tricco (2017).

Insert TABLE 1 here

Search Methods

To identify relevant papers, two databases Ovid Medline and OVID EMBASE were searched using the terms Advanced Practice, Training, Patient satisfaction. The Boolean operator 'and' was used to refine the search which was limited to English language papers published between 2007-2018 (refer to refer to Supplementary Table 2). The methodology selected was the 4-stage process of narrative synthesis outlined by Popay *et al.* (2006) for effectiveness rapid reviews.

Stage 1 Developing a theory- This stage informs the decision about the review question and the types of studies to review. Due to the paucity of papers that focussed on educational preparedness of the ACP, all 99 abstracts were reviewed by two researchers for educational preparedness. Thirty-nine were identified for inclusion.

The review questions were: (i) What factors have an impact on a transition for the newly qualified ACP? and (ii) How have these factors been integrated into a curriculum to improve educational preparedness of the ACP?

Stage 2- Developing a preliminary synthesis- The themed papers were distributed to individual members of the team who reviewed and critiqued the relevant papers. (See Figure 1- PRISMA diagram).

Stage 3 - Exploring relationships in the data- The main themes identified were: (i) consolidation of the role post study, (ii) the theory-practice gap, (iii) competence and (iv) role modelling/mentoring. These themes were explored in the identified papers.

Stage 4- Assessing the robustness of the synthesis product - This part of the process examined the strength of the evidence from which the conclusions were drawn and examined if the conclusions were generalisable to newly qualified ACPs.

Search Outcomes

Ninety-nine abstracts were reviewed for educational preparedness with 53 included.

Insert Figure 1 here

Data Abstraction

Forty-six papers that referred to educational preparedness of registered clinicians for the ACP role were identified and 39 papers included. Critical Appraisal Skills Programme Checklist (CASP 2018) was applied and papers were excluded if they did not meet these criteria.

Synthesis

Four themes were identified through the analysis in relation to educational preparedness of ACPs. Consolidation of the role post study, the theory-practice gap, competence and role modelling/mentoring (refer to Supplementary Table 3). A narrative synthesis approach was undertaken (Ryan, 2013).

Results

Of the thirty-nine included papers, 23 reported data from the USA, two from Australia, five from Canada, two from Sweden, six from the UK and one from the Netherlands. The studies were grouped into themes consolidation /transition, theory-practice gap, competency and role modelling/mentoring (refer to Supplementary Table 4). The majority of the studies identified report findings from studies involving NPs and NP education rather than other healthcare professionals.

Consolidation/Transition

The literature on consolidation and role transition into the NP role is mostly from North America where NP is a well-established role. Most are single-site studies using convenience samples with small numbers of participants. The transitioning timescale was disputed in several studies. All agreed that the newly graduated NP required a period to transition and

consolidate advanced practice. This was best achieved by a structured period of clinical internship with supportive mentorship for up to one-year post training (Sullivan-Bentz *et al.* 2010, Rugen *et al.* 2018; Brown & Olshansky, 1997). All the papers identified that establishing the NP roles was challenging and some assumed an 'imposter role' where role expectations were not clearly defined, or the NP role was an innovation in the service (Jangland *et al.* 2016).

Specific barriers and facilitators were identified to NP role transitioning to practice. Support from nursing and medical colleagues was regarded as the most important facilitator to successful role transition (Cusson & Nelson Strange, 2008). Barriers identified were returning to work environments where previously employed (Cusson & Nelson Strange, 2008, Sullivan -Bentz, 2010), and lack of definition of role expectations and outcomes by service providers (Brown & Olshansky, 1997, Sullivan -Bentz, 2010). For the most part, the most challenging barrier to role transition was time to consolidate skills across a range of clinical settings and support from mentors. When the above were not in place, it took longer to transition and work independently (Rugen *et al.* 2018). Structured mentorship schemes where NPs were supervised on a 1-to-1 basis by medical practitioners, or where they had opportunities to rotate to different clinical specialities (Lee & Fitzgerald, 2008, Brooks & Niederhauser, 2009) and improved role transitioning significantly (Ruston and Tavable, 2011, Brown & Olshansky, 1997, Maten-Speksnijder, 2015).

The limitations of structured clinical internships schemes were that the prime focus was on development of clinical competence, mainly in the medical domain (Maten-Speksnijder *et al.* 2015; Jangland *et al.* 2016). Rugen *et al.* (2018) noted that there was minimal emphasis on developing other components of the NP role, such as leadership and service improvement. Reasons stated were that there was a greater need for NP clinical competence to provide direct patient care related to service deficits (Spoelstra & Robbins, 2010), and NP educational

preparation prioritised clinical skills development above professional preparation (Rugen *et al.* 2018).

Theory practice gap

Benner's 'From Novice to Expert' model was initially developed to address the development of the nurses' level of skill acquisition (Benner, 2001). This model is based on the Dreyfus Model of Skill Acquisition and is frequently used to represent the professional progression of skilled nursing practice and the interventions based on clinical judgement in practice. According to this model, nurses move through the five levels of proficiency: novice, advanced beginner, competent, proficient, and expert (Benner, 2001). Novice NPs who transition to practice navigate through similar stages of professional skill performance (Faraz, 2016). The expertise develops when the NPs apply the general theory principles in the clinical setting with the goal of providing comprehensive holistic patient care. Although the adaptation of this model to the NPs' practice can be inferred, the fit between the aspects of each proficiency level and the NPs' professional progression has not been studied nor described in detail in the literature.

Novice NPs may undergo a "reality shock" or "transition shock" when entering the workforce due to a gap of what was learned as an NP student and the expertise needed to be successful in practice (Duchscher, 2007; Fitzpatrick & Gripshover, 2016). In a recent qualitative evidence synthesis, Master's level education was identified as one of the main themes in addressing the key issues of transition (Moran & Nairn, 2018). As Master's level award or equivalent is now supported by the Health Education England (HEE) (2018) for ACP, simulation can serve as a vehicle in reducing the theory to practice gap. In one systematic review on the effectiveness of simulation-based education in NP programmes on learners' knowledge, skill performance, confidence and attitudes, high-fidelity simulation led to an increase in the students' knowledge, confidence and satisfaction (Warren *et al.* 2016).

Nevertheless, there is a lack of evidence to support the replacement of clinical hours with simulation in NP education (Rutherford-Hemming, Nye & Coram, 2015). All of the studies included in both of the systematic reviews were performed in the US and, as ACP education continues to develop, there is a need to further this type of research in the UK.

Other theories have emerged and/or been adapted over the years to address the process of the NPs transition to clinical practice. Meleis's Transitions Theory has been adapted as a framework to define personal and community conditions that help to either promote or inhibit NPs' transition to practice (Meleis *et al.* 2000). Based on this theory, Barnes (2015) conducted a descriptive cross-sectional survey investigating the relationships between prior nursing experience, formal orientation and NP role transition and reported that only a formal orientation led to a positive NP role transition. This finding supports other papers, where formal orientation programmes were found to help novice NPs to gain confidence, competence and feel more satisfied in their new roles (Goodwin-Escola, Deely & Powell, 2009; Sorce, Simone & Madden, 2010; Flinter, 2012; Sargent & Olmedo, 2013).

Fellowships or residencies for the new NP graduates or those NPs wishing to change specialties are another way of reducing the theory to practice gap. Novice NPs in specialty areas request more educational content and clinical experiences in the form of residencies or mentoring options (Jones *et al*. 2015). However, the approaches to NP fellowships or residencies vary greatly and remain inconsistent as to the standard of the didactics, clinical competencies, and duration (MacDonald *et al*. 2006, Rudy & Wilbeck, 2017). As ACP education continues to develop at a Master's or equivalent level in the UK, standardization of such fellowships/residencies and associated competencies in specialty areas will provide the novice NPs with consistent preparation to ensure a successful professional transition.

Competencies:

Assessing competencies is an important part of ACP, and there are different ways of assessing these and using theoretical frameworks to show how skills are gained. Avadhani (2017) described how a simulation programme was introduced to assess invasive procedure skills. The skills acquisition framework by Barraclough was used in the study and reported significant improvement in in the acute care NP students' knowledge, skills and attitudes.

A qualitative interpretative single-embedded case study of 22 participants examining physical assessment skills education reported that these skills were used in practice successfully by community advanced NPs (Raleigh & Allen, 2016). However, the authors did not formally assess competencies, but instead asked the students about what they learnt, and students reported feeling competent with their physical assessment skills education.Other papers have examined specific aspects of practice such as communication but did not specifically mention competencies in the article (Curtis *et al.* 2013), while others have linked number of hours to development of core clinical competencies (Hallas *et al*., 2012). The authors reported that 500 clinical hours correlated to populations, skills performed, required levels of decision making, and expected diagnoses but they conceded that they could not establish if these clinical hour requirements translated to exposure to all core competencies for entry into practice. The authors suggested that more performance-related assessments could be used such as case-based evaluations, simulations, or objective structured clinical examinations (OSCEs) to evaluate clinical competencies. Melnyk *et al.* (2014) developed 13 evidence-based practice competencies for practicing registered nurses and 11 additional competencies for Advanced Practice Nurses with seven evidence-based practice leaders in the US. The paper, however, did not demonstrate whether these competencies were successfully implemented into practice.

Hutchinson *et al.* (2014) presented practice domains that pre-date the HEE definition of ACP but there were common elements between, such as autonomous clinical practice, developing the practice of others, improving systems of care, developing and delivering educational programmes, research and scholarship. Paton *et al.* (2013) described a case study involving a competency-based preparation course for ACPs. The three-month programme involved ongoing professional development, that included journal clubs and conference attendance that was specific to their role. Intensive mentorship was put in place to support the ACPs with role transition. The main focus of the orientation programme was on skills, knowledge and making decisions under pressure as the ACPs transitioned from a care giver to a care director. Of note, 23% of ACPs did not pass this programme. Payne *et al.* (2016) described educational preparation as one of the essential learning outcomes and as role-specific competencies for ACPs working in elderly care. These studies clearly show some commonality in their programmes but also highlight the complexity of the roles requirements in terms of clinical knowledge and skills. Overall, there is a paucity of literature on competencies in ACP and of the studies identified, the majority were small single-centred studies with small numbers of participants.

Objective Structured Clinical Examinations (OSCEs) are commonly used in advanced practice education and a literature search revealed three papers on the topic. Barrett (2010) investigated if recording simulated OSCEs was beneficial for NP students in the UK. The results showed that simulated OSCE video-recordings were an effective method for supporting NP educational development. Another study from 2009 by Kurz *et al.,* (2009) compared two different assessment methods: OSCEs and standardized patients (SP- where Faculty-trained laypersons act as the patient), to the traditional Health Assessment course. In the 37 students who participated, there were statistically significant differences between the two groups for the final practical examination grades, clinical preceptor evaluations,

satisfaction scores, and self-evaluations of skills at the course's end. Those who undertook OSCEs and SPs had higher scores than those in the traditional group. The authors recommended that educators incorporate SPs and OSCE in order to improve clinical competency scores and course satisfaction. Aronowitz *et al.*'s (2017) article is an opinion piece advocating simulated patient encounters and OSCEs but no empirical data is reported to support this.In summary, the use of OSCEs in advanced practice is poorly studied although it is a common assessment method within ACP programmes.

Mentoring/Role Modelling

The literature on mentoring was, once again, predominantly from North America and focuses on the process in relation five areas of advanced practice using the Strong model- direct comprehensive care, education, research, support of systems and publication and professional leadership. Pop (2017) undertook a grounded theory study in order to develop a theory of mentoring and identified three categories: forming the relationship, developing it and mentoring outcomes. The needs of NPs are discussed by others (Jarrell, 2016, Brand *et al.*, 2016; Doerksen, 2010), in terms of identifying specific areas such as clinical skills, leadership and research and highlights the novice to expert NP journey. Mentorship is cited as reducing anxieties in novice NPs as they transition but no studies measured psychological well-being specifically (Hill & Sawatzky, 2011). However, the transition from novice to expert was seen as stressful with the stages of transition and the authors endorsed the use of experienced NPs as mentors.

What becomes clear from the literature on mentorship is that mentoring is seen as valuable but there are no formalised validated programmes and most of the work was on small numbers of NPs from single sources. The US and Canadian programmes identified mentors as experienced NPs (Brand *et al.* 2016, Jarrell, 2016), whereas other countries do not. Leggat

et al. (2015), for example studied the benefits of mentorship in Australia, with mentors were predominantly in executive nursing roles and mentorship only for leadership development with only 4 of the 16 mentors being NPs. Only one paper was identified with physicians acting as mentors (Barton, 2006). This UK based paper undertook a qualitative study of physicians and their experiences as mentors. The paper highlighted the issues of one professional body mentoring another, and how scope of practice differs between the two. This has always been a contentious area, but Barton acknowledges that medical benchmarking is an efficient method of providing direction for physicians in this mentoring role. The paper also highlighted how students' clinical authority changes as they transition from novice to expert. Clearly more work is needed in this area as NPs develop and expand their clinical skills and the benefits of working with experienced physicians needs to be explored. The key to successful mentorship were duration of programme and whether it was formal or informal (Doerksen, 2010, Hill & Sawatzy, 2011). All agreed that NPs confidence increases throughout NP programmes as they gain experience and develop professionally.

Discussion

In summary, the majority of the literature reviewed refers specifically to NPs rather ACPs and most of the papers only examine one aspect of education preparedness and most in small, single centred studies. Although ACPs have not been specifically examined in the reviewed papers, the findings remain relevant to ACP education and curriculum development. It is clear from this review of available literature that there needs to be both clinical and theoretical components in the ACP curriculum supported in clinical practice by having appropriate ACP role models and mentors. In relation to educational preparedness, the ACP curriculum needs to recognise the often-complex diagnostic and clinical decision-making elements of the role as described by Jokiniemi *et al.* (2013). The importance of facilitating

placements and internships for ACP trainees has also been highlighted in this review and is advocated by others (Lee and Fitzgerald, 2008).

For role transition to be managed well, it appears there needs to be an unspecified time period where the newly qualified ACP is mentored within the clinical setting as they commence on the novice to expert journey. They need to operate in an environment where all members of the team understand and are supportive of the ACP role, although there is a paucity of literature to support this statement.

The UK Royal College of Emergency Medicine and the Faculty of Intensive care medicine have created curricula for ACPs working in these clinical settings with specific competencies (Faculty of Intensive Care Medicine, 2015, Royal College of Emergency Medicine, 2017). With the changing healthcare needs of patients across a variety of settings (acute and community based), ACPs need to be able to demonstrate complex-decision making to assess, manage and treat patients using their extensive knowledge and skills. University curricula need to ensure ACPs have the appropriate skills and knowledge and be able to integrate theory and practice. Assessment of this can be achieved using a validated clinical competency assessment tool. This has already been instigated by some Higher Education Institutes following collaborative development between the clinical stakeholders and the universities (Health Education South London, 2016, Bench *et al.*, 2018).

Finally, it is important to note that although much has been written about advanced practice, few have examined educational preparation and preparedness for the ACP role in those enrolled in ACP programmes.

Limitations

With reference to the approach taken, the rapid review approach was selected as the information was required within a short timeframe to inform decisions relating to a new

curriculum under development for ACP training at the authors educational institution. Educational preparedness of ACPs for clinical practice who had completed their Masters' programmes is a subject of interest for the review team.

Using the seven-stage approach (Ticco, 2017) informed the direction of the work as did the Popay's 4 stage approach (Poapy, 2006) to narrative synthesis as the identified papers are a combination of primary studies and reviews.

RECOMMENDATIONS FOR PRACTICE AND RESEARCH

There is a paucity of original research articles with a robust methodology regarding educational preparation of ACPs for the role. Research into the most effective models of educational preparedness for ACPs is required to ensure future curricula adequately prepare people for the role they are expected to fulfil in clinical practice. It is also clear that current ACPs need to understand their importance as good role models and mentoring, not just for trainee ACPs but also for the wider healthcare workforce. Studies need to be undertaken to evaluate the various ACP programmes and provide evidence on their effectiveness and benefits to patient care.

CONCLUSION

Significant fiscal investment and personnel are required to train an ACP. The number of ACPs in training is increasing and it is important that an effective model of education preparation is available. The ACP qualification is fundamental to safe delivery of patient care across healthcare sectors within the UK. Ensuring adequate educational preparedness will reassure the ACP profession and lead to role acceptance by fellow clinicians and the public. Transitioning from novice to expert is vital to ensure safe healthcare and a suitably qualified workforce and thus being adequately educationally prepared to take on and succeed in an ACP role is essential.

This rapid review has highlighted the need for further research which aims to identify the specific educational preparedness required for the ACP role. Identification and dissemination of good educational practice will ensure that transition into the ACP role is as smooth as possible, resulting in the ACP being prepared, and most importantly being competent and confident to embrace and flourish their new ACP role.

REFERENCES

Avadhani A. (2017). Should procedural skills be a part of the Acute Care Nurse Practitioner Curriculum, Nurse Education Today 50, 11-118

Barnes H. (2015). Nurse Practitioner Role Transition: A Concept Analysis. Nursing Forum, 50, 137-214

Barrett J. (2010). A focus group study of the use of video-recorded objective structured clinical examinations in nurse practitioner examination. Nurse Education in Practice, 10, 170-175

Barton T.D. (2006). Clinical mentoring of nurse practitioners: the doctors' experience. British Journal of Nursing, 2006, 15, 820-824

Benner, P. (2001). From novice to expert: Excellence and power in clinical nursing practice. Upper Saddle River, NJ: Prentice Hall

Brand M.C., Cesario S.K., Symes L., & Montgomery D. (2016). Journey to Becoming a Neonatal Nurse Practitioner. Making the Decision to Enter Graduate School. Advances in Neonatal Care, 16 (2), E3-E11

Brooks M. V., & Niederhauser V. (2009). Preceptor expectations and issues with nurse practitioner clinical rotations. Journal of the American Academy of Nurse Practitioners, 22(11):573-9 doi: 10.1111/j.1745-7599.2010.00560

Brown M-A., & Olshansky E.F. (1997). From Limbo to Legitimacy: A Theoretical Model of The Transition to the Primary Care Nurse Practitioner Role. Nursing Research, 46(1), 46-51

Bryant-Lukosius D., Dicenso A., BrVowne G. & Pinelli J. (2004) Advanced Practice Nursing Roles. Journal of Advanced Nursing, 48(5), 519–529.

CASP (2018). Clinical Assessment Skills Programme, https://casp-uk.net/ (last accessed 13.01.19)

Curtis J.R., Black A.L., Ford D.W., Downey L., Shannon S.E., Doorenbos A.Z., Kross E.K., Rienke L.F., Feemster L.C., Edlund B., Arnold R.W., O'Connor K., & Engelberg R. (2013). Effect of Communication Skills Training for Residents and Nurse Practitioners on Quality of Communication With Patients With Serious Illness: A Randomised Trial. JAMA. 310 (21), 2271–2281. doi:10.1001/jama.2013.282081.

Cusson R.M., & Nelson Strange S. (2008). Neonatal Nurse Practitioner Role Transition The Process of Retaining Expert Status, J Perinat Neonational Nursing, 22 (4), 329–337

Department for Health (2014). The NHS five year forward view, The King' s Fund October NHS England

https://www.kingsfund.org.uk/projects/nhs-five-year-view (last accessed 27.03.17)

Department for Health (2015). Mandate from Department of Health to Health Education England https://.gov.uk/government/uploads/system/uploads/attachment_data/file/386221/NHS_England_.Mandate.pdf (last accessed 28.03.18)

Doerksen K. (2010). What are the Professional and Mentorship needs of Advanced Practice Nurses? Journal of Professional Nursing, 26, 141–151

Driscoll A., Harvey C., Green A., Wetherby R., Liew D., Lord J., Lee G., Crellin D., Dubroff N., & Heland M. (2012) National nursing registration in Australia: A way forward for nurse practitioner endorsement. Journal of the American Academy of Nurse Practitioners, 24 (3), 143-148

Duchscher J.E.B. (2009) Transition shock: the initial stage of role adaptation for newly graduated Registered Nurses. Journal of Advanced Nursing 65(5), 1103– 1113. doi: 10.1111/j.1365-2648.2008.04898.x

Elliott P.A. (1995) The development of advanced nursing practice :1, British Journal of Nursing 4, 633-636

Faculty of Intensive Care Medicine (2015). Curriculum for training Advanced Critical Care Practitioners. https://www.ficm.ac.uk/sites/default/files/ACCP%20Curriculum%20v1.0%20%282015%29%20COMPLETE_0.pdf last accessed 21.01.19

Faraz A. (2017). Novice nurse practitioner workforce transition and turnover intention in primary care. Journal of the American Association of Nurse Practitioners, 29, Issue 1 1-57. doi.org/10.1002/2327-6924.12381

Fitzpatrick S., & Gripshover J. (2016). Expert Nurse to Novice Nurse Practitioner: The Journey and How to Improve the Process. The Journal for Nurse Practitioners, 12, e419–e421. https://doi.org/10.1016/j.nurpra.2016.05.012

Flinter M. (2011). From new nurse practitioner to primary care provider: bridging the transition through FQHC-based residency training. Online J Issues Nurse. 28,17(1) 6

Goodwin-Esola M., Deely M., & Powell N. (2009). Progress meetings: facilitating role transition of the new graduate. Journal of Continuing Education for Nurses, 40(9) 411-5. doi: 10.3928/00220124-20090824-04

Health Education England (2015). Raising the Bar Shape of Caring: A Review of the Future Education and Training of Registered Nurses and Care Assistants.

https://www.hee.nhs.uk/sites/default/files/documents/2348-Shape-of-caring-review-FINAL_0.pdf (last accessed 12.12.17)

Health Education England (2017). https://hee.nhs.uk/our-work/developing-our-workforce/advanced-clinical-practice/advanced-clinical-practice-definition (last accessed 28.03.17)

Health Education South London. (2016). HESL Advanced Practice Framework. NHS: London

Health Education England (2018). Health Education England Advanced Clinical Practice Definition https://www.hee.nhs.uk/our-work/advanced-clinical-practice (last accessed 13.01.19)

Hill L.A., & Sawatzky J.V. (2011). Transitioning into the Nurse Practitioner Role Through Mentorship. Journal of Professional Nursing, 27, 161–167. doi:10.1016/j.profnurs.2011.02.004

Hutchinson M., East L., Stasa H., Jackson. D. (2014). Deriving Consensus on the Characteristics of Advanced Practice Nursing. Meta-summary of More than 2 Decades of Research. Nursing Research, 62 (3), 116-128.

Imison C., Castle-Clarke S., & Watson R. (2016). Reshaping the workforce to deliver the care patients need, Nuffield Trust: London. http://www.nuffieldtrust.org.uk/node/4651 (Last accessed 25.06.17)

Jangland E., Uhlin P.Y., & Arakelian E. (2016). Between two roles, Experiences of newly trained nurse practitioners in surgical care in Sweden: A qualitative study using repeated interviews. Nurse Education in Practice, 21, 93e99

Jarrell L. (2016). Professional Development and Mentorship Needs of Nurse Practitioners. Journal for Nurses in Professional Development & Volume 32, 26Y32

Jokiniemi K., Pietila A., Kylma J., & Haatainen K. (2012). Advanced nursing roles: A systematic review. Nursing Health and Sciences, 14, 421-431

Jokiniemi K., Haatainen K., & Pietila A. (2013). From challenges to advanced practice registered nursing role development: Qualitative interview study. International Journal of Nursing Practice, 21, 896-903

Jones J., Kotthoff-Burrell E., & Kass-Wolff J. (2014). Nurse practitioner graduates "Speak Out" about the adequacy of their educational preparation to care for older adults: A qualitative study. Journal of the American Association of Nurse Practitioners, 27, 698–706

Kurz J.M., Mahoney K., Martin-Plank L., & Lidicker J. (2009). Objective Structured Clinical Examination and Advanced Practice Nursing Students. Journal of Professional Nursing, 25, 186-91. doi: 10.1016/j.profnurs.2009.01.005.

Leary A., Maclaine K., Trevatt P., Radford M., & Punshon G. (2017). Variation in job titles within the nursing workforce. Journal of Clinical Nursing. 26,494–4950. Doi: 10.1111/jocn.13985

Lee G., Fitzgerald L. (2008). A Clinical Internship Model for the Nurse Practitioner Programme. Nursing Education in Practice, 8, 397-404

Leggat S.G., Balding C., & Schiftan D. (2015). Developing clinical leaders: the impact of an action learning mentoring programme for advanced practice nurses. Journal of Clinical Nursing, 24, 1576–1584

MacDonald J., Herbert R., & Thibeault C. (2006). Advanced Practice Nursing: Unification Through a Common Identity. Journal of Professional Nursing 22, 172-1799 ·https://doi.org/10.1016/j.profnurs.2006.03.009

Maten-Speksnijder A., Pool A., Grypdonck, Meurs P., & Van Staa A. (2015). Driven by Ambitions: The Nurse Practitioner's Role Transition in Dutch Hospital Care. Journal of Nursing Scholarship, 47, 544–554

Meleis A.I., Sawyer L.M., Eun-Ok I., Hilfinger M.D.K., & Schumacher K. (2000). Experiencing Transitions: An Emerging Middle-Range Theory. Advances in Nursing Science, 23, 12-28

Melnyk B.M., Gallagher-Ford L., Long L.E., & Fineout-Overholt E. (2014). The Establishment of Evidence-Based Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes and Costs. Worldviews on Evidence-Based Nursing, 11, 5-15

Moran G. M., & Nairn S. (2017). How does role transition affect the experience of trainee Advanced Clinical Practitioners: Qualitative evidence synthesis. Journal of Advanced Nursing, 74, 251-262

O'Leary D.F. , Casey M., O'Connor L., Stokes D., Fealy G.M., O'Brien D., Smith R., McNamara M.S., & Egan C. (2016). Using rapid reviews: an example from a study conducted to inform policy-making. Journal of Advanced Nursing, 73, 742-752. Doi: 10.1111/jan.13231 (last accessed 13.01.19)

Paton A., Stein D.E., D'Agostino R., Pastores S.M., & Halpern N.A. (2013). Critical Care Medicine Advanced Practice Provider Model at a Comprehensive Cancer Center: Successes and Challenges. American Journal of Critical Care, 22, 439-443. doi: 10.4037/ajcc2013821

Payne C., Farrell K., & Heye M.L. (2016). Revitalising Learning Outcomes for Adult Gerontology Advanced Practice Programmes. Journal of Professional Nursing, 32, 494-500

Pop R.S. (2017). Mentoring Nurse Practitioners in a Hospital Setting. The Journal of Nursing Research. 25, 304-309

Popay J., Roberts H., Sowden A., Petticrew M., Arai L., Rodgers M., Britten N., Roen K., & Duffy S. (2006). Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A Product from the ESRC Methods Programme.

Raleigh M., & Allan H. (2016). A qualitative study of advanced nurse practitioners' use of physical assessment skills in the community: shifting skills across political boundaries. Journal of Clinical Nursing, 26, 2025-2035

Royal College of Emergency Medicine (2017). The Royal College of Emergency Medicine, Emergency Care Advanced Clinical Practitioner Curriculum and Assessment. https://www.rcem.ac.uk/docs/Training/EM%20ACP%20curriculum%20V2%20Final.pdf Last accessed 21.01.2019

Ruston A., & Tavable A. (2011). An evaluation of a training placement in general practice for paramedic practitioner students: improving patient-centred care through greater interprofessional understanding and supporting the development of autonomous practitioners. Quality in Primary Care, 19, 167–73

Rutherford-Hemming T., Nye C., & Coram C. (2016). Using simulation for clinical practice hours in nurse practitioner education in the United States: A systematic review. Nurse Education Today. doi: 10.1016/j.nedt.2015.11.006

Rugen K. W., Harada N., Harrington F., Dolansky M. A., & Bowen J. L. (2018). Nurse Practitioner residents' perceptions of competency development during a year-long immersion in Veterans Affairs primary care: A qualitative study. Nursing Outlook, 66, 352–364. doi: 10.1016/j.outlook.2018.05.002.

Sargent L., & Olmedo M. (2013). Meeting the needs of new-graduate nurse practitioners: a model to support transition. J Nursing Administration, 43, 603-10. doi: 10.1097/01.NNA.0000434506.77052.d2

Source L., Simone S., & Madden M. (2010). Educational preparation and postgraduate training curriculum for pediatric critical care nurse practitioners. Pediatric Critical Care Med, 11, 205-212

Spoelstra S.L., & Robbins L.B. (2010). A Qualitative Study of Role Transition form RN to APN. International Journal of Nursing Education and Scholarship, 7 no 1 article 20. DOI: 10.2202/1548-923X.2020

Sullivan-Bentz M., Humbert J., Cragg B., Legault F., Laflamme C., Bailey P.H., & Doucette S. (2010). Supporting primary health care nurse practitioners' transition to practice. Canadian Family Physician, 56, 1176-1182

Tricco A.C., Langlois E.V., & Straus S.E. (2017). Rapid reviews to strengthen health policy and systems: a practical guide. World Health Organization, Alliance for Health Policy and Systems Research ISBN: 978 92 4 151276 3

Warren J.N., Luctkar-Flude M., Godfrey C., & Lukewich J. (2016) A systematic review of the effectiveness of simulation-based education on satisfaction and learning outcomes in nurse practitioner programs. Nurse Education Today, 46, 99-108. doi: 10.1016/j.nedt.2016.08.023

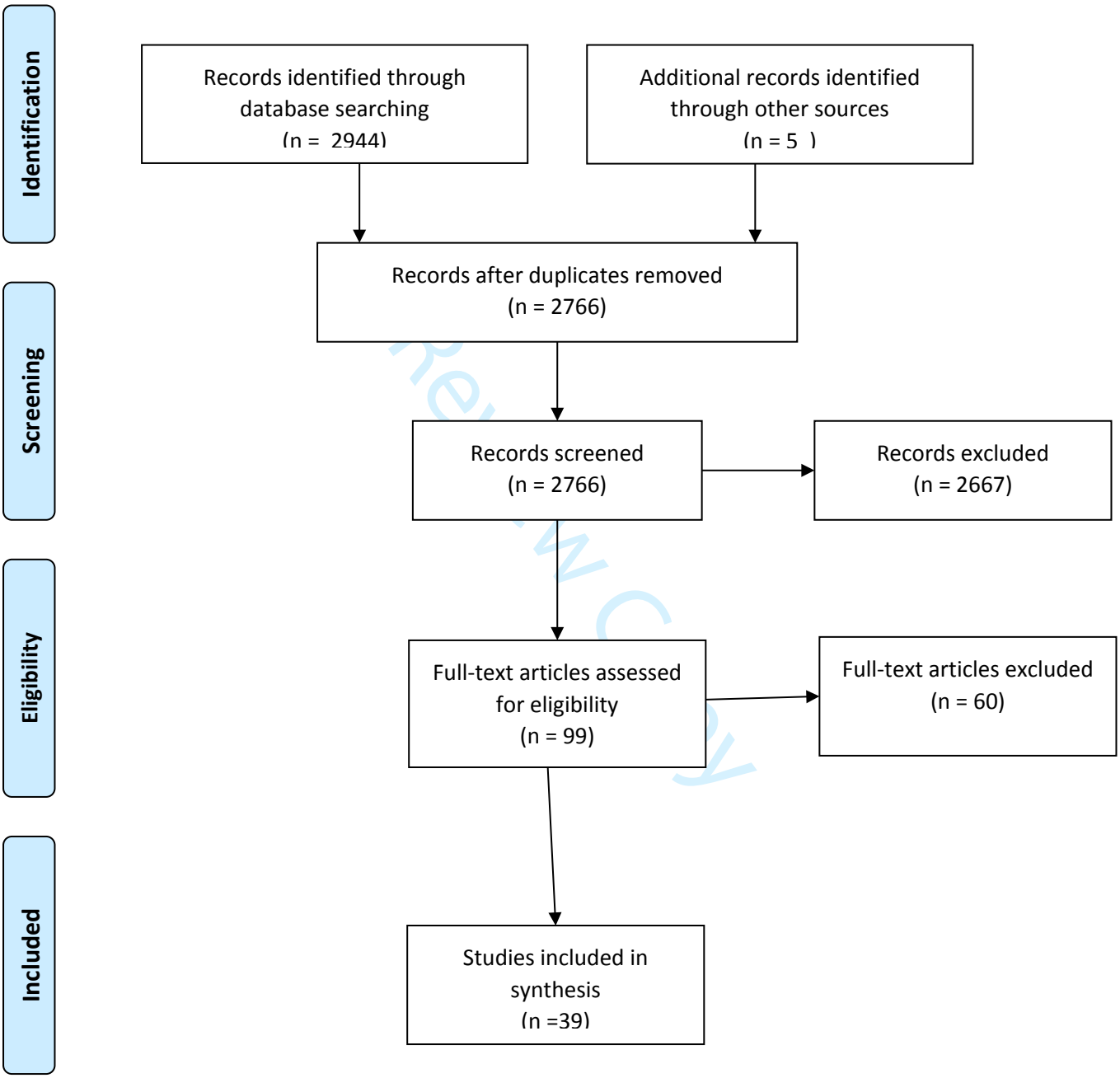
Wilbeck J., Roberts E., & Rudy S. (2017). Emergency Nurse Practitioner Core Educational Content. Advanced Emergency Nursing Journal, 39, 141-151. doi: 10.1097/TME.0000000000000142.

Table 1: The seven-stage process as defined by Tricco and applied to the rapid review:

Process stage	
Needs Assessment	ACP curriculum development within the faculty led to a discussion regarding educational preparedness.
Protocol development	Review team identified This review was not registered with PROSPERO as this rapid review is not a clinical outcome. PRISMA created and distributed for comment
Literature search	Ovid Medline, CINAHL, keywords 'Advanced Practice, Training, Patient satisfaction' English 2007-2018
Screening and Study Selection	Two reviewers reviewed Ninety-nine studies in full, four themes were identified and each of the four themes was written by a member of the team. Thirty-nine were identified for inclusion.
Data Extraction	Themes identified across the papers
Risk of Bias assessment	Two reviewers identified the papers to be reviewed. Individuals who wrote each section read the papers again, used CASP to decide which papers to include in the final draft.
Knowledge synthesis	Narrative summary

Figure 1: PRISMA diagram

PRISMA Flow Chart for Rapid Review:



Supplementary Table 1: PEO of Rapid review:

Population	Exposure	Outcome
Advanced Practice	Training	Competence
Advanced Clinical Practice	Educational preparation	Clinical Preparedness
Nurse Practitioner	Academic Practice	Clinical Practice
Allied Health Professional	Clinical Supervision	Patient Satisfaction
Prescriber	Competency based Assessment	Patient Safety
Independent Practitioner	Mentorship	Decision Making
Autonomous Practitioner	Practice Consolidation	Clinical Confidence
Nursing Clinician	Practice Simulation	Effective Practice

Supplementary Table 2: Ovid MEDLINE and Ovid EMBASE Search Strategy:

No.	Search Term	Medline	Embase
1	Exp Advanced Practice/	1425	1631920
2	Advance* adj2 Clinic* adj2 Practi*.mp	481	650
3	Nurse adj2 Practitioner* .mp	21255	26481
4	Allied Health Professional/	11191	333
5	Prescrib* .mp	129472	209548
6	Independent adj2 Practi*.mp	2810	2606
7	Autonomous adj2 Practi* .mp	239	265
8	Nurse adj2 Clinician .mp	298	385
9	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8	165428	238069
10	Train* .mp	494421	671621
11	Education* adj2 Prepar* .mp	2045	2361
12	Academic adj2 Practi* .mp	2564	3765
13	Clinic* adj2 Supervis* .mp	2508	4481
14	Competenc* adj2 Based adj2 Assess* .mp	268	386
15	Mentorship/	9765	2300
16	Practi* adj2 Consolidation .mp	39	47
17	Practi* adj2 Simulation .mp	447	587
18	10 or 11 or 12 or 13 or 14 or 15 or 16 or 17	507329	13838
19	Competence (exp Nursing Staff, Hospital/ or exp Educational Measurement/ or exp Education, Medical, Graduate/ or exp Internship and Residency/ or exp Curriculum/ or exp models, Educational/ or exp Education, Medical, Undergraduate/ or exp Clinical Competence/ or exp Competency based Education/ or exp Inservice Training/	297569	115771
20	Competenc* .mp	175127	180285
21	Clinic* adj2 Prepar* .mp	2169	2883
22	Clinic* adj2 Practi* .mp	178953	404864
23	Patient adj2 Satisfaction .mp	90862	131298
24	Patient adj2 Safety .mp	37138	114601
25	Decision adj2 Making .mp	182022	377091
26	Clinic* adj2 Confidence .mp	796	1205
27	Effective adj2 Practi* .mp	5149	6195
28	19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27	804075	657126

29	9 and 18 and 28	4258	218
30	Date Limitation: 2006 - Current	2770	174

Supplementary Table 3: Initial Themes and article numbers:

Theme	No of studies
Competence of AP's	6
Period of consolidation / supervised practice	6
Educational modality in AP	12
Inter-professional Education in AP	7
Mentorship and Supervision in AP	8
OSCE for AP assessment	3
Educational Preparedness of AP students	6
Transition in to an AP role	5

Supplementary Table 4: Table of included Studies and themes identified

THEME 1 : CONSOLIDATION AND TRANSITION			
	AUTHORS	**ORIGIN**	**TYPE OF STUDY**
1	Sullivan-Bentz et al. (2010)	Canada	Qualitative descriptive design (n= 44)
2	Rugen et al (2018)	USA	Programme evaluation (n=38)
3	Brown & Olshansky (1997)	USA	Grounded theory (n=35)
4	Jangland et al (2016)	Sweden	Qualitative study Repeated interviews (n=10)
5	Cusson et al (2008)	USA	Qualitative descriptive design (n=70)
6	Lee & Fitzgerald (2008).	Australia	Feedback from student NPs(n=3)
7	Brooks & Niederhauser (2009)	USA	Cross sectional design (n=108)
8	Ruston & Tavable (2011)	UK	Case study (n=16)
9	Maten-Speksnijder et al (2015)	Netherlands	Qualitative descriptive design (n=9)
10	Spoelstra & Robbins (2010)	USA	Qualitative Thematic analysis (n=24)
THEME 2: THEORY PRACTICE GAP			
1	Benner (2001)	UK	Theoretical framework
2	Faraz (2017)	USA	Descriptive Cross-sectional study (n=177)
3	Flinter (2011)	USA	Case study
4	Duchscher (2009)	Canada	Theoretical framework
5	Goodwin-Esola, et al. (2009).	USA	Case Study

6	Jones et al (2014)	USA	Qualitative descriptive study (n=23)
7	Fitzpatrick & Gripshover (2016)	USA	Report
8	Moran & Nairn (2017)	England	Qualitative evidence synthesis (n= 11)
9	Sargent L & Olmedo (2013)	USA	Evaluation
10	Source et al. (2010)	USA	Evaluation (n=20)
11	Warren et al. (2016)	Canada	Review of evidence
12	Wilbeck et al (2017)	USA	Evaluation
THEME 3: COMPETENCY			
1	Avadhani (2017)	USA	Evaluation
2	Barrett (2010)	England	Qualitative focus groups
3	Curtis et al (2013)	USA	RCT (n=232 intervention, n=240 control)
4	Hallas et al (2012)	USA	Evaluation
5	Hutchinson et al (2014)	Australia	Three-phase approach -systematic review, qualitative meta-summary & analysis
6	Kurz et al (2009)	USA	Quasi-experimental, post-test control group (n=37)
7	Melnyk et al. (2014)	USA	Delphi Study
8	Paton et al (2013)	USA	Case Study
9	Payne et al. (2016)	USA	Evaluation
10	Raleigh & Allan (2016)	England	Qualitative interpretative single embedded case study (n = 22)
THEME 4: MENTORING			
1	Barton (2006)	Wales	Ethnography
2	Brand et al (2016)	USA	Qualitative study (n=11)
3	Doerksen (2010).	Canada	Prospective mixed methods (n=14)
4	Hill & Sawatzky (2011)	Canada	Literature Review
5	Jarrell (2016)	USA	Quantitative descriptive study
6	Pop (2017)	Sweden	Grounded Theory

ACP Educational Preparedness Revision Table

Revision area identified	Revised to	Reviewer responded to
Abstract Revisions		
Page 2 Line 15 In the UK, increasing numbers of nurses and other allied healthcare professionals undertake roles traditionally performed by medical professionals. This review focusses on the educational preparedness of advanced clinical practitioners.	Reworded: 'In many first-world countries, there has been increased demand for advanced practice (AP) roles in healthcare.'	Professor Jane Noyes
Page 2 line 27 A systematic search strategy was implemented using the following databases: Education Resources Information Centre, Cumulative Index to Nursing and Allied Health Literature, and Medline. The search included the following keywords: 'Advanced Practice', 'nonmedical'.' 'Advanced Clinical Practice'. English language papers published between 2007-2017 were included. Search was undertaken in December 2017.	A systematic search strategy was implemented using the following databases: Ovid Medline Ovid EMBASE. The search included the following search terms: 'Advanced Practice', 'Training'.' 'Patient Satisfaction'. English language papers published between 2007-2018 were included. Search was undertaken in November 2018.	
Page 2 line 29 A systematic search strategy was implemented using the following databases: Education Resources Information Centre, Cumulative Index to Nursing and Allied Health Literature, and Medline. The search included the following keywords: 'Advanced Practice', 'nonmedical'.' 'Advanced Clinical Practice'. English language papers published between 2007-2017. Search was undertaken in December 2017.	A systematic search strategy was implemented using the following databases: Ovid Medline Ovid EMBASE. The search included the following search terms: 'Advanced Practice', 'Training'.' 'Patient Satisfaction'. Using Population, Exposure, Outcome (PEO). The search was limited to English language papers published between 2007-2018 were included. Search was undertaken in November 2018. Ninety-nine papers were then reviewed by two of the research team for eligibility, thirty-nine papers were included in the review. See PRISMA diagram.	

Keywords Page 2 line 15 Advanced clinical practice, nursing, healthcare professionals, education, clinical preparedness, role transition.	Advanced clinical practice, nursing, healthcare professionals, education, clinical preparedness, training, role transition, mentoring, specialist.	
Page 2 Line 41 The database search identified 32 publications. Using a narrative synthesis,	Two reviewers reviewed Ninety-nine studies in full, four themes were identified and each of the four themes was written by a member of the team. Thirty-nine were identified for inclusion. Using the seven-stage process outlined by Tricco (2017).	Reviewer 2
Page 5 Line 14 (Department of Health (DOH) 2012; Bryant-Lukosius *et al* 2015; Lee and Fitzgerald, 2008	Reference reordered (oldest first)	Beech
Removed from p. 5 line 21 (The Five Year Forward View (FYFV)	Removed	Beech
Page 5 Line 21- Full stop removed	Amended accordingly	Beech
Page 5 Line 26 NHS evolves from an illness-based, provider-led system to a patient-led, preventative system that offers care closer to home (Imison *et al*., 2016)	Reworded:upskill the workforce and ensure the NHS evolves to have the skills required to meet the health needs of population	Beech
Page 5 Line 29 -It is acknowledged	Sentence removed	Beech
Page 5 Line 41- Bryant-Lukosius *et al*	Uniformity, inline with JAN guideance	Beech
Page 5 line 41	Section added: A recent UK study highlighted the numbers of varying job titles that included 'advanced practitioner' across different departments and different healthcare providers both nationally and internationally (Leary *et al.*, 2017).	
Page 5 Line 42 This has resulted in diversity in curriculum preparation	Changed to: Within England added to the start of the sentence.	Beech
Page 5 line 45 Health Education England West Midlands (HEEWM)	Changed to: HEE	
Page 5 Line 46-49	Removed	Beech

UK healthcare employers are calling for uniformity and clarity of definition of advanced practice, supported by a national competence framework to ensure safe governance.		
Page 21, line 3 At present, there is no universal definition of AP with no international consensus as to how the ACP role should be defined	At present, there is no universal definition of AP with no international consensus as to how the ACP role should be defined. This has resulted in many job titles using advanced practitioner which vary widely across different departments and between different healthcare providers both nationally and internationally (Leary *et al* 2017)	Beech
Page 6 line 5 this is supported by the findings of a meta-summary of fifty papers by Hutchinson *et al* (2014)	Changed to This has resulted in many job titles using advanced practitioner which vary widely across different departments and between different healthcare providers both nationally and internationally (Leary *et al* 2017). A meta-summary of fifty papers identified seven domains of advanced practice. They were unable to define advanced practice as there was inconsistency in the definition, measurement and function and scope of advanced practice across Australia, USA and UK (Hutchinson *et al.* 2014). When considering educational preparation Masters level study was commonly the minimum requirement in the UK, USA, Australia and Finland (Driscoll *et al.,* 2012).	Beech
Page 6 line 11	Sentence added Reworded- The concept of the advanced nurse being Masters prepared was described by Elliott (1995) and the Royal College of Nursing (RCN) defines advanced nursing practice "*as a level of practice rather than a role or job title. (Advanced nursing practice) both builds on, and adds to, the set of competences common to all registered nurses*" RCN (2012).	
Page 6 line 13 Brackets added *Advanced nursing practice*	(Advanced Nursing Practice)	Beech
Page 6 line 17 HEE	See line 22 page 5	Beech
Page 6 line 18 Across the UK	Removed across England and Wales (RCN 2008; NHS Wales 2010)	Beech

Page 6 line 18 standardise ACP role functions,	Changed to Health Education England's objective is to develop a more flexible workforce which is able to respond to these changes (DH 2015) and this definition has now been adopted across England and Wales in order to standardise the role and allow consistent practice across disciplines for ACP roles (HEE, 2017).	Beech
Page 6 line 20- Elliott 1995	Removed (used page 6 line 11)	Beech
Page 6 line 34 Health Education England's objective is to develop a more flexible workforce		Beech
Page 6 line 36 and 37 To respond to these changes (DH 2015) and this definition has now been adopted across the UK in order	Changed accordingly: across England and Wales in order…	Beech
Page 6 line 42- A lack of protection of the 'Advanced Practitioner' title in the UK	A lack of protection for the 'Advanced Practitioner' title in England and Wales unlike the US and Australia where it is a legally protected title.	Beech
Page 6 line 45 **'advanced clinical practitioners'**	'advanced nurse practitioners'	Beech
Page 6 line 46 Jokiniemi *et al* 2013, O'Leary *et al*.	Consistent with JAN referencing guidelines	Beech
Page 6 line 46-48	Edited and moved to earlier section (see page 6 line 5)	Beech
Page 6 line 53- in place for some years. This programme is centred on the pillars of advanced	Amended accordingly	
Page 6 line 5- identified in a framework	Amended	Beech
Page 7 line 20	Rapid reviews are designed to examine a snapshot of current research to inform changes in clinical practice in a cost and time pressured environment using a systematic and transparent process, using limited search criteria and limited databases working collaboratively with a team of researchers and experts within the field to minimise limitations (O'Leary *et al.* 2016).	
Page 7 line 21	O'Leary *et al.* 2017) consistent with JAN referencing guidelines	
New section inserted	The review questions related to educational preparedness of ACPs Search Methods The methodology selected was the 4 stage process of narrative synthesis outlined by Popay et al (2006)	Professor Jane Noyes

Design New section inserted	This rapid review followed the seven stage process outlined by Tricco (2017) .	
Limitations section inserted	Critique of the approach taken.	Prof J Noyes
Search Methods **P7 line 26-32**	Two databases Ovid Medline OVID EMBASE were searched using the terms Advanced Practice, Training, Patient satisfaction (see prisma diagram).	
P7 line 32- 2007-2017	Updated to: 2007 - 2018	
Search Outcomes **Page 7 line 37- Nine papers**	Font change in accordance with guidelines Fifty three	Beech
Page 7 line 44- 34 papers	46 papers	
Page 7 line 45 ACP role were identified. Papers were excluded if they did not meet these criteria	Forty-six papers that referred to educational preparedness of registered clinicians for the ACP role were identified and 39 papers included. Critical Appraisal Skills Programme Checklist (CASP 2018) was applied and papers were excluded if they did not meet these criteria.	
Page 7 line 49	Section rewritten as required	Beech
Page 8 line 3- Results	RESULTS: Complete Section rewrite pages 10-17	
Page 10 line 36- Discussion	Section rewrite: pages 17-18.	
Page 11 line 25- Limitations	Rewrite: page 18	
Page 12 line 13- Conclusion	Section Rewritten: page 19.	